

# **GATEWAY SOUTH AND TRANSWEST EXPRESS**

## **CONCEPTUAL TECHNICAL REPORT**

### **APPENDIX - MAPS OF STUDIED ALTERNATIVES**

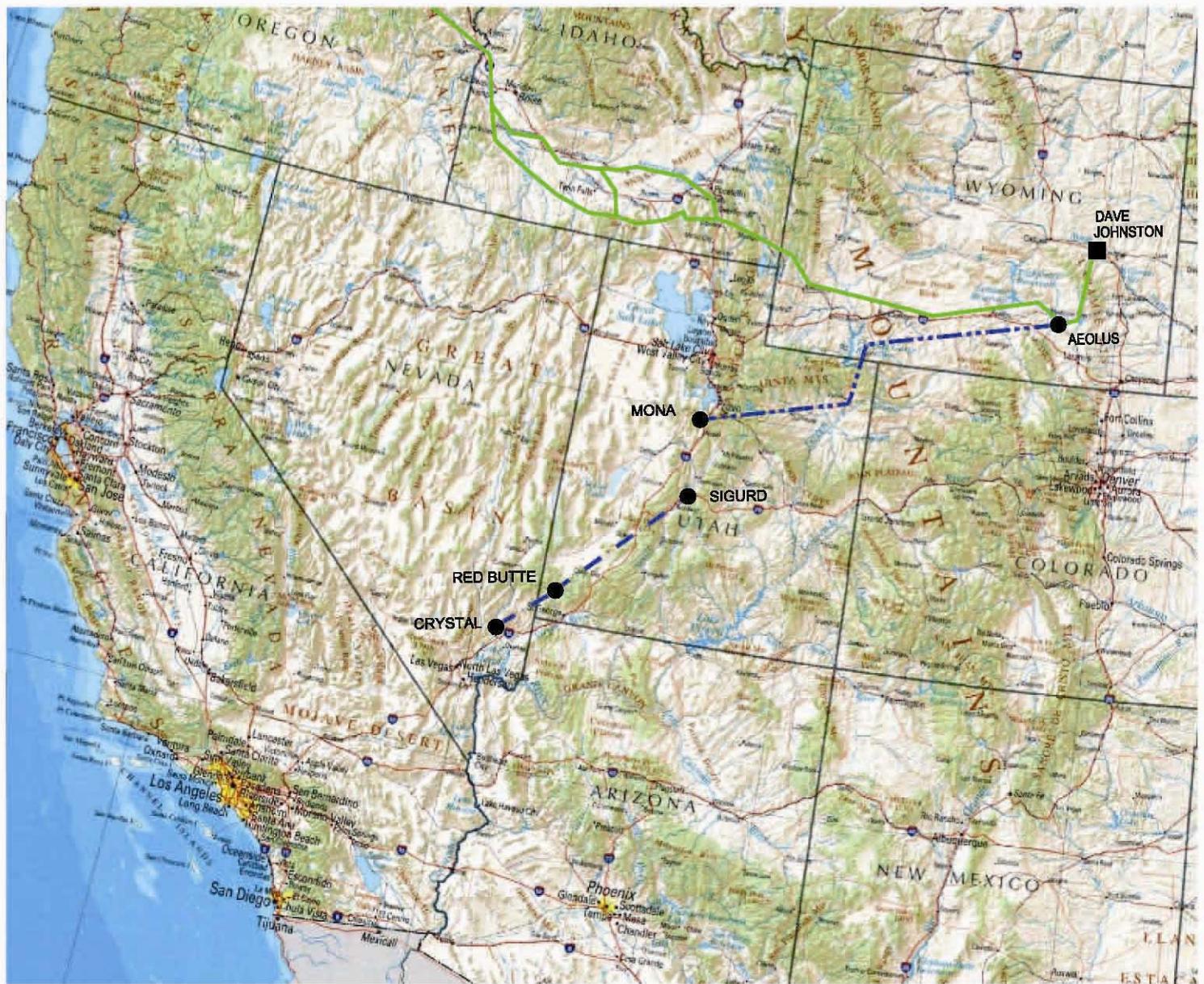
**Prepared for:**

**National Grid**  
**Arizona Public Service Company**  
**PacifiCorp**  
**Wyoming Infrastructure Authority**

**Prepared by:**

**Black & Veatch**

**January 23, 2008**



(Routes shown are for illustration only and will be selected only following a comprehensive environmental review process)



Gateway South —————  
 Gateway West ——————  
 500KV Double Circuit - - - -  
 345KV Single Circuit - - - - -  
 Power Plant ■  
 Substation ●

Approx. Scale

200 Miles

### CASE 1

#### Gateway South Facilities

- Aeolus – Mona 500KV Double Circuit
- Sigurd – Red Butte – Crystal 345KV Single Circuit

#### TransWest Express Facilities

- None

#### Transfer Capacity

- 3000 MW Leaving Wyoming
- 3000 MW Aeolus – Mona
- 800 MW Sigurd – Crystal
- 0 TransWest Express



(Routes shown are for illustration only and will be selected only following a comprehensive environmental review process)



Gateway South   
 Gateway West   
 500KV Double Circuit   
 500KV Single Circuit   
 Power Plant Substation   
 Substation

Approx. Scale

200 Miles

## CASE 2

### Gateway South Facilities

- Aeolus - Mona 500KV Double Circuit
- Mona - Red Butte - Crystal 500KV Single Circuit

### TransWest Express Facilities

- None

### Transfer Capacity

3000 MW Leaving Wyoming  
 3000 MW Aeolus - Mona  
 1500 MW Mona - Crystal  
 0 MW TransWest Express



(Routes shown are for illustration only and will be selected only following a comprehensive environmental review process)



TransWest Express ——————  
 500KV HVDC - - - - -  
 Power Plant ■■■■■  
 Substation ●●●●●

Approx. Scale

200 Miles

### CASE 3

#### Gateway South Facilities

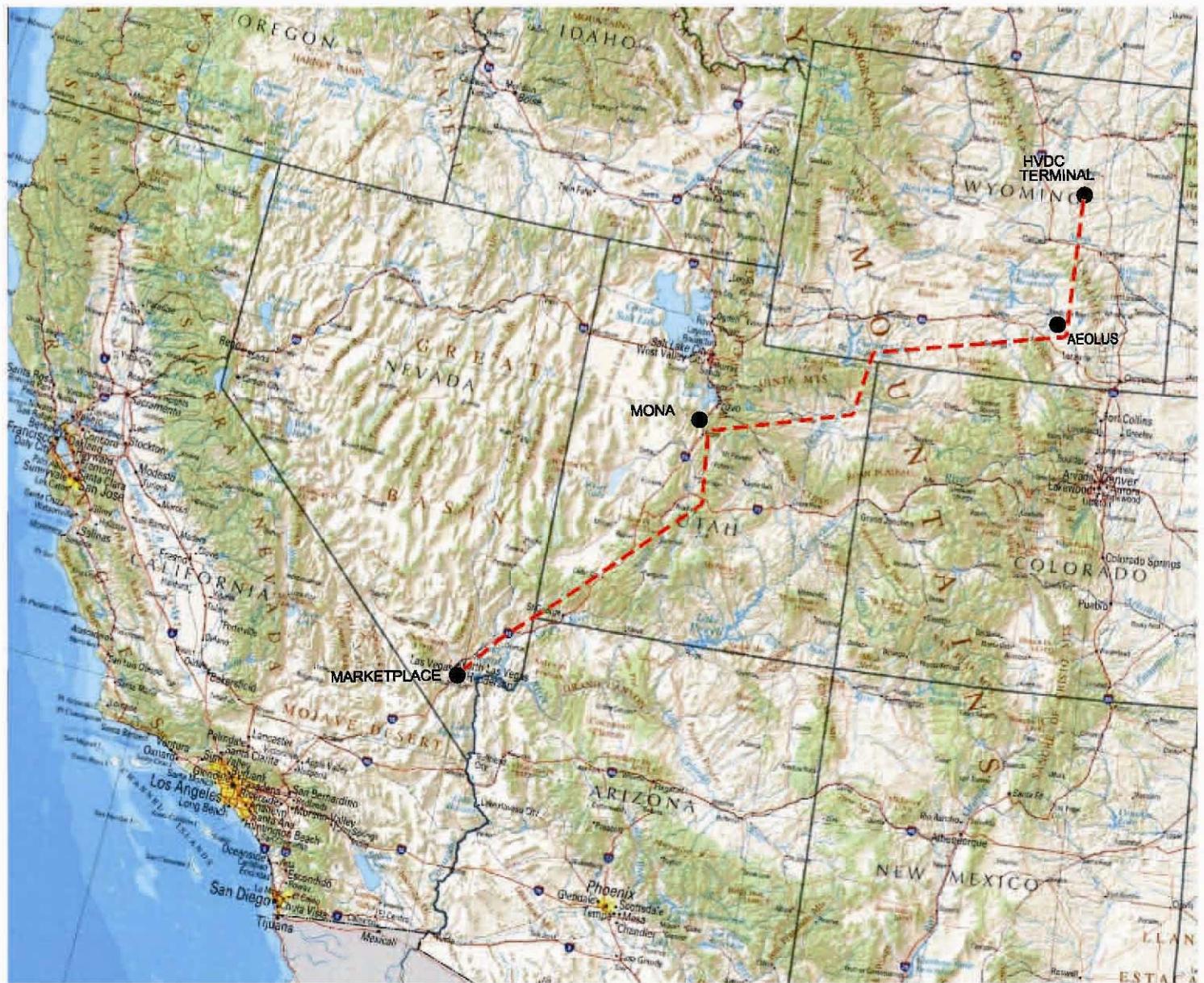
- None

#### TransWest Express Facilities

- Dave Johnson – Pinnacle Peak 500KV HVDC

#### Transfer Capacity

- 3000 MW Leaving Wyoming
- 0 MW Aeolus – Mona
- 0 MW Mona – Crystal
- 3000 MW TransWest Express



(Routes shown are for illustration only and will be selected only following a comprehensive environmental review process)



TransWest Express ——————  
 500KV HVDC - - - - -  
 Power Plant ■  
 Substation ●

Approx. Scale

200 Miles

#### CASE 4

Gateway South Facilities

- None

TransWest Express Facilities

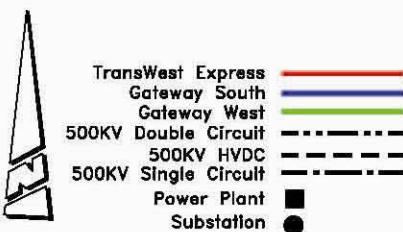
- Wyoming – Marketplace 500KV HVDC

Transfer Capacity

3000 MW Leaving Wyoming  
 0 MW Aeolus – Mona  
 0 MW Mona – Crystal  
 3000 MW TransWest Express



(Routes shown are for illustration only and will be selected only following a comprehensive environmental review process)



Approx. Scale

200 Miles

### CASE 5

#### Gateway South Facilities

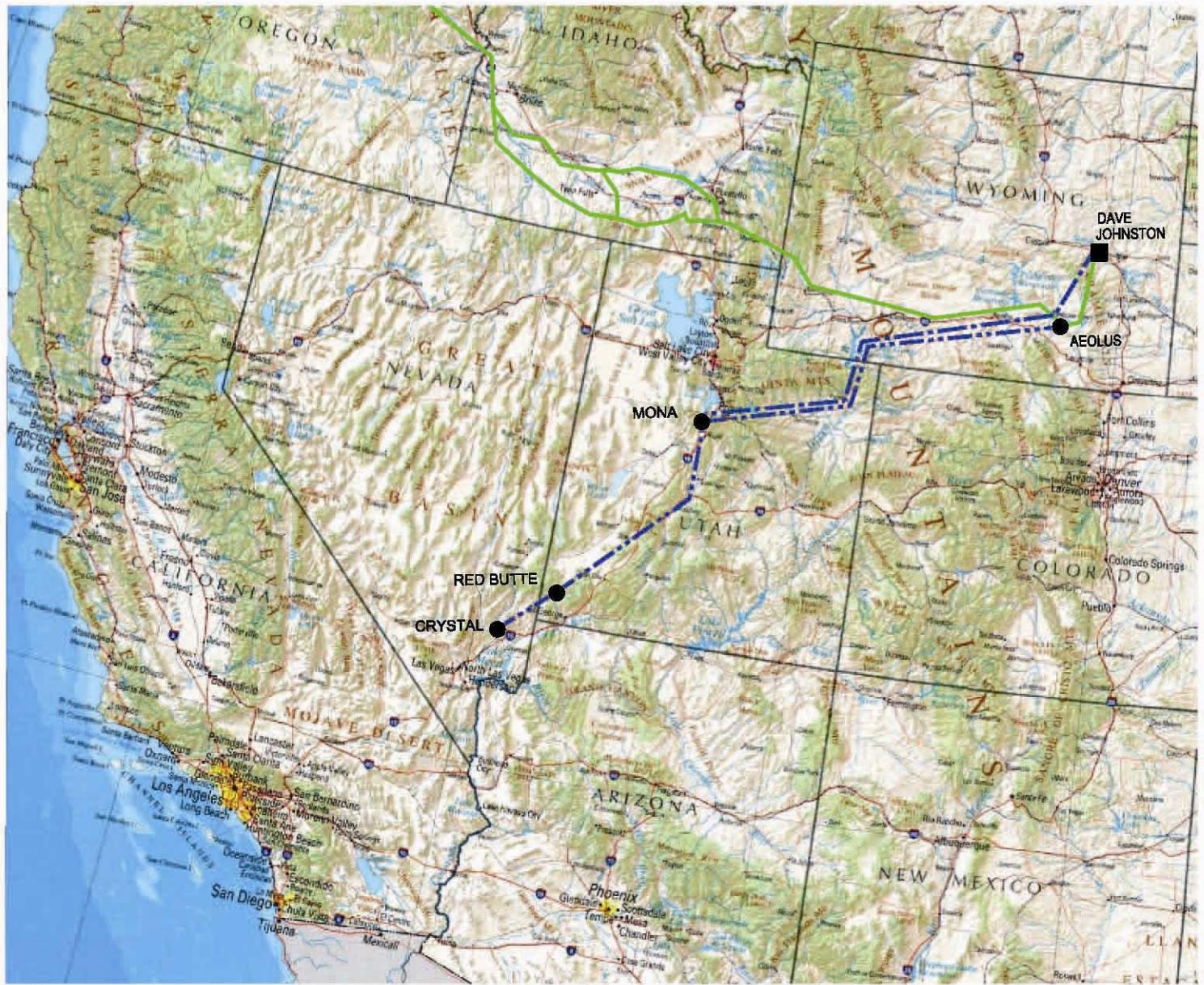
- Aeolus – Mona 500KV Double Circuit
- Mona – Red Butte – Crystal 500KV Single Circuit

#### TransWest Express Facilities

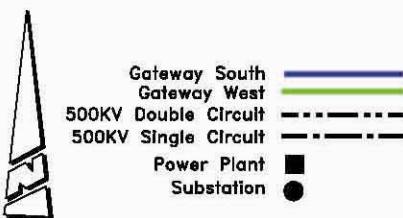
- Wyoming – Marketplace 500KV HVDC

#### Transfer Capacity

- 6000 MW Leaving Wyoming
- 3000 MW Aeolus – Mona
- 1500 MW Mona – Crystal
- 3000 MW TransWest Express



(Routes shown are for illustration only and will be selected only following a comprehensive environmental review process)



Approx. Scale

200 Miles

## CASE 6

### Gateway South Facilities

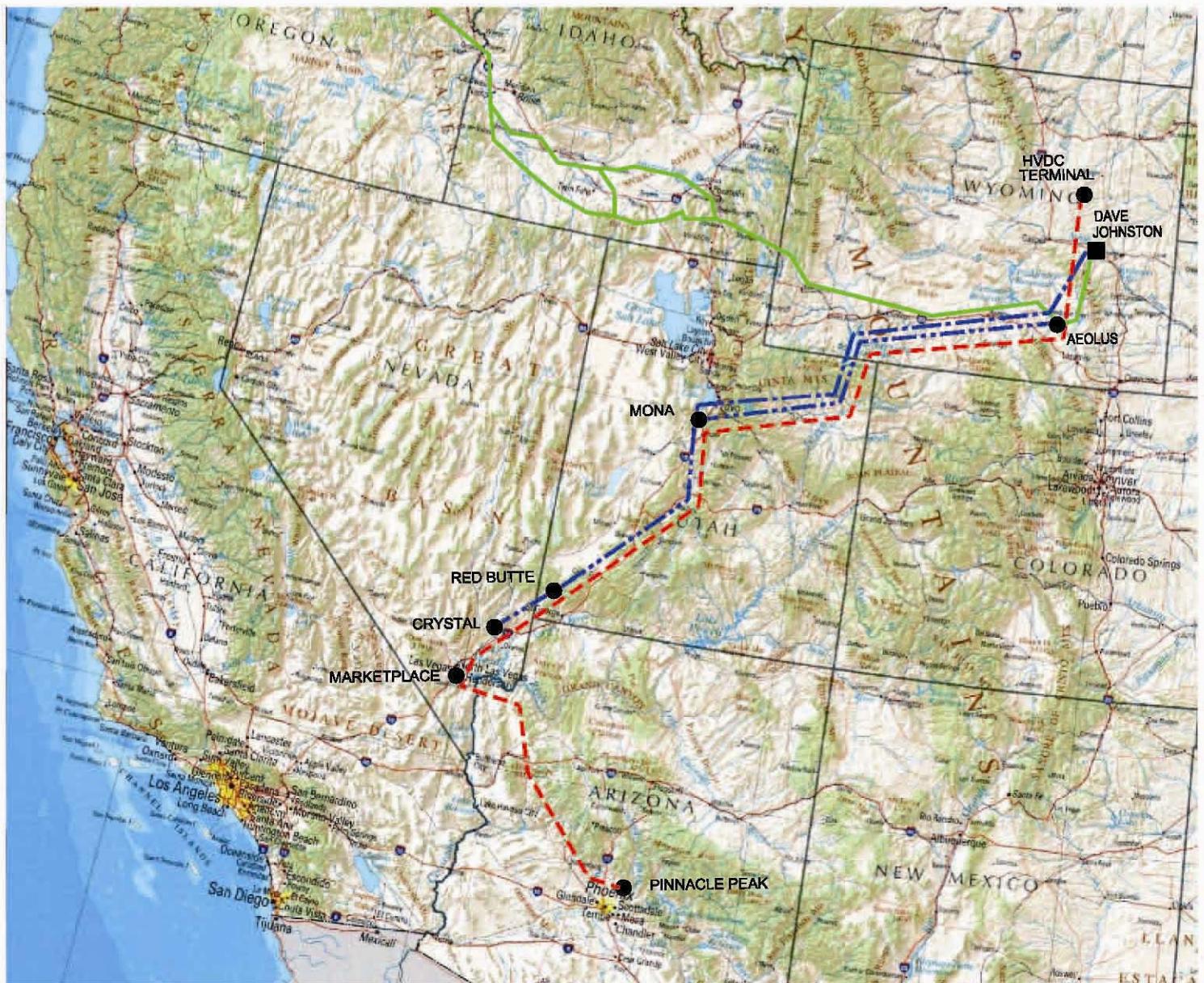
- Aeolus – Mona 500KV Double Circuit
- Mona – Red Butte – Crystal 500KV Double Circuit
- Dave Johnston – Mona 500KV Single Circuit

### TransWest Express Facilities

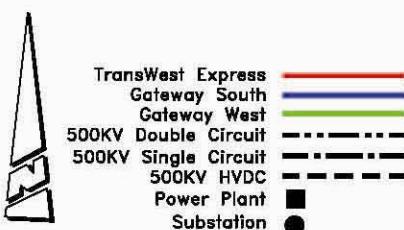
- None

### Transfer Capacity

- 4500 MW Leaving Wyoming
- 4500 MW Aeolus/Dave Johnston – Mona
- 3000 MW Mona – Crystal
- 0 MW TransWest Express



(Routes shown are for illustration only and will be selected only following a comprehensive environmental review process)



Approx. Scale

200 Miles

## CASE 7

### Gateway South Facilities

- Dave Johnston - Mona 500KV Single Circuit
- Aeolus - Mona - Red Butte - Crystal 500KV Double Circuit

### TransWest Express Facilities

- Wyoming - Pinnacle Peak 500KV HVDC

### Transfer Capacity

- 7500 MW Leaving Wyoming
- 4500 MW Aeolus/Dave Johnston - Mona
- 3000 MW Mona - Crystal
- 3000 MW TransWest Express



(Routes shown are for illustration only and will be selected only following a comprehensive environmental review process)



TransWest Express ——————  
 500KV Single Circuit - - - - -  
 500KV HVDC - - - - -  
 Power Plant ■  
 Substation ●

Approx. Scale  
 200 Miles

### CASE 8

#### Gateway South Facilities

- None

#### TransWest Express Facilities

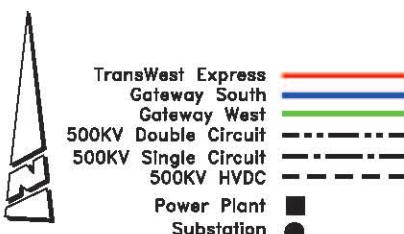
- Wyoming – Marketplace 500KV HVDC
- Marketplace – Pinnacle Peak 500kv Single Circuit

#### Transfer Capacity

3000 MW Leaving Wyoming  
 0 MW Aeolus – Mona  
 0 MW Mona – Crystal  
 3000 MW TransWest Express



(Routes shown are for illustration only and will be selected only following a comprehensive environmental review process)



Approx. Scale

200 Miles

### CASE 9

#### Gateway South Facilities

- Aeolus – Mona 500KV Double Circuit
- Mona – Red Butte – Crystal 500KV Single Circuit

#### TransWest Express Facilities

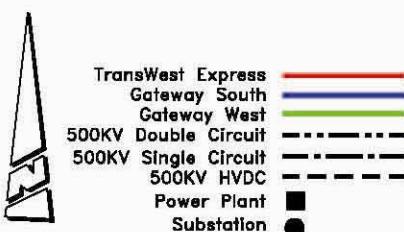
- Wyoming – Pinnacle Peak 500KV HVDC

#### Transfer Capacity

- 6000 MW Leaving Wyoming
- 3000 MW Aeolus – Mona
- 1500 MW Mona – Crystal
- 3000 MW TransWest Express



(Routes shown are for illustration only and will be selected only following a comprehensive environmental review process)



Approx. Scale

200 Miles

### CASE 10

#### Gateway South Facilities

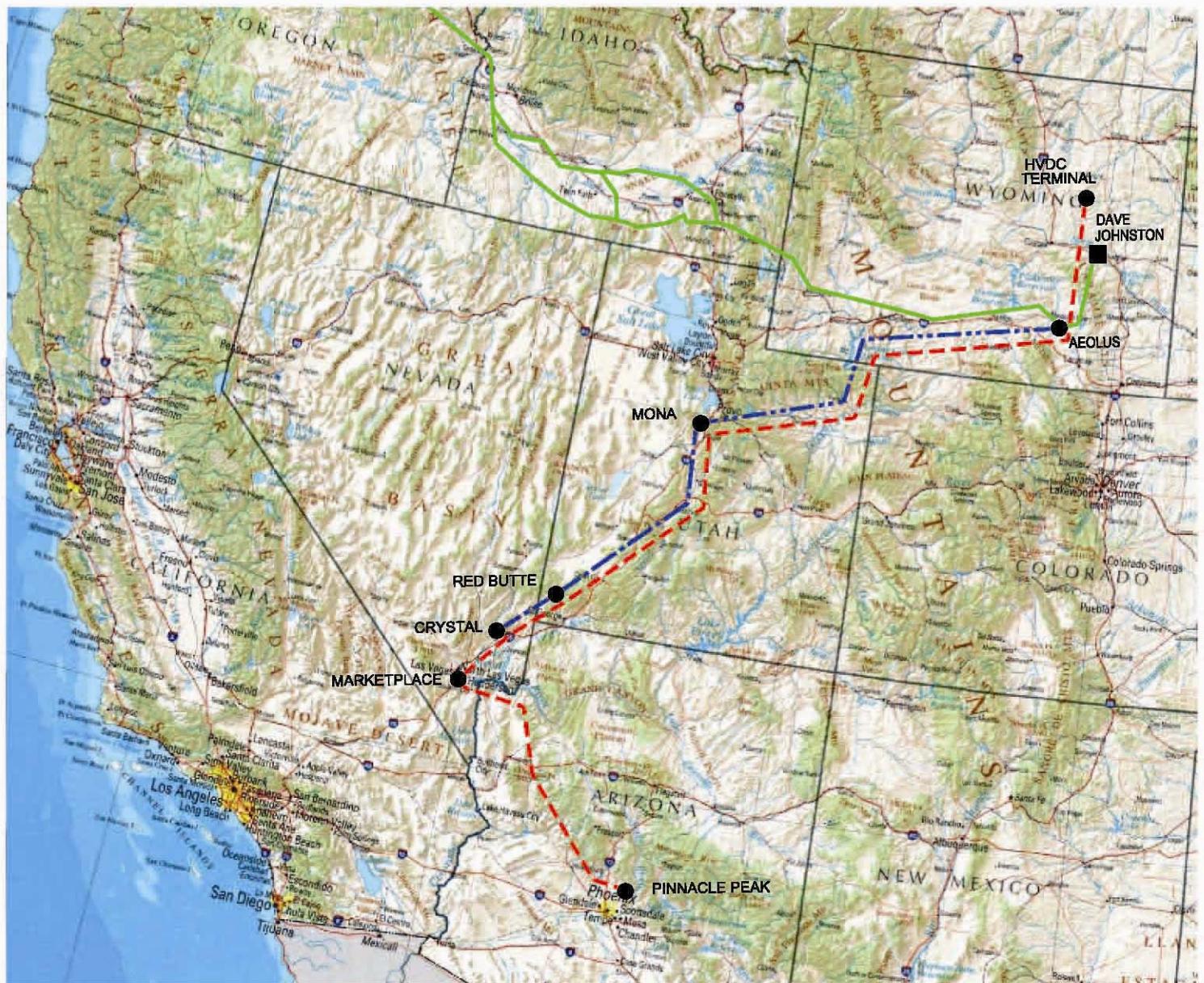
- Aeolus - Mona 500KV Double Circuit
- Mona - Red Butte - Crystal 500KV Single Circuit

#### TransWest Express Facilities

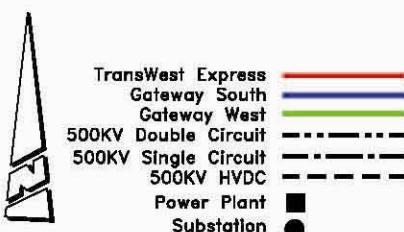
- Wyoming - Marketplace 500KV HVDC
- Marketplace - Pinnacle Peak 500KV Single Circuit

#### Transfer Capacity

- 6000 MW Leaving Wyoming
- 3000 MW Aeolus - Mona
- 1500 MW Mona - Crystal
- 3000 MW TransWest Express



(Routes shown are for illustration only and will be selected only following a comprehensive environmental review process)



Approx. Scale

200 Miles

### CASE 11

#### Gateway South Facilities

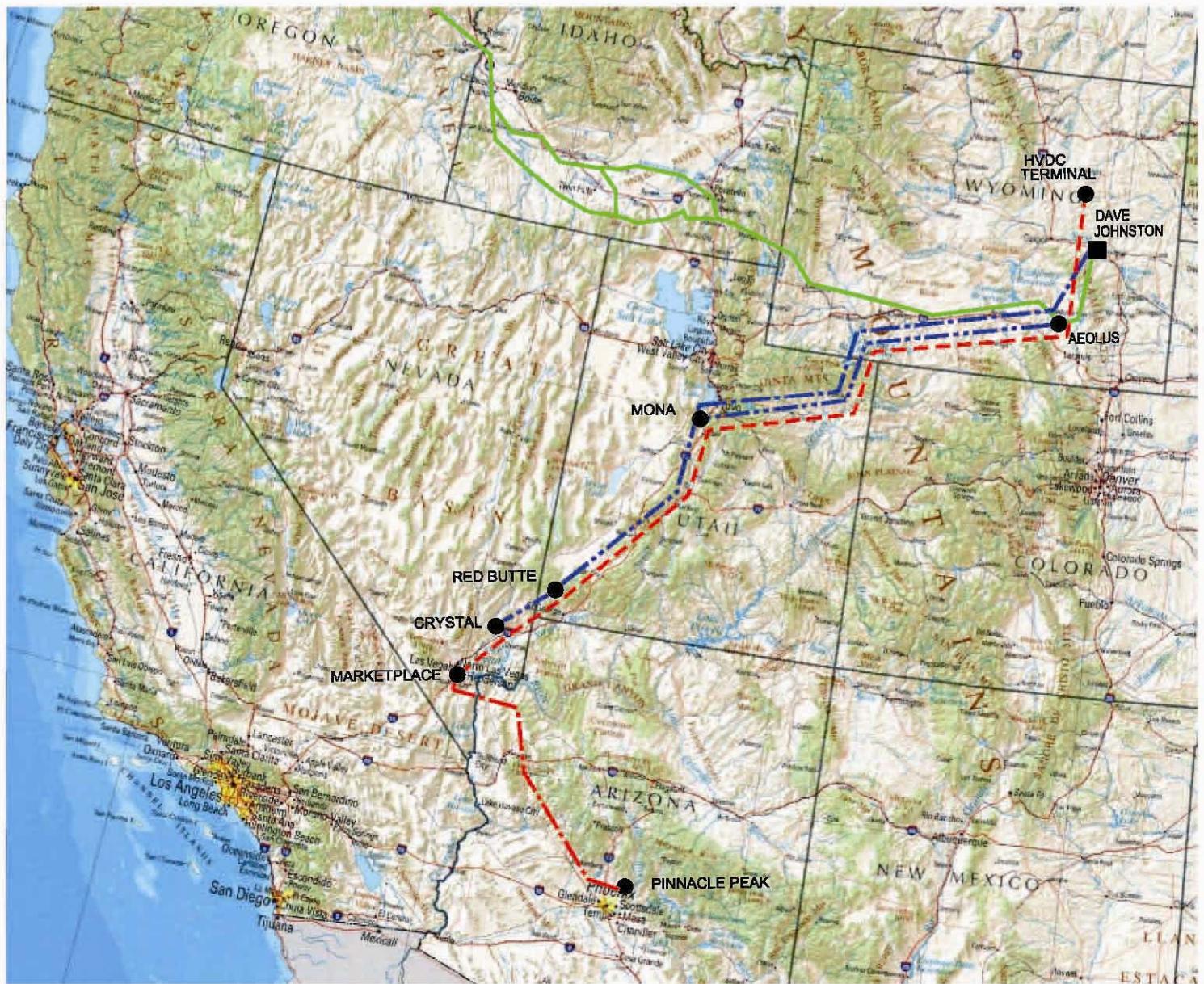
- Aeolus – Mona 500KV Double Circuit
- Mona – Red Butte – Crystal 500KV Single Circuit

#### TransWest Express Facilities

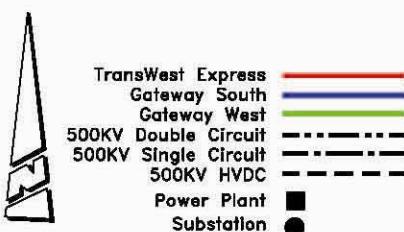
- Wyoming – Marketplace – Pinnacle Peak 500KV HVDC
- Third Terminal at Marketplace

#### Transfer Capacity

- 6000 MW Leaving Wyoming
- 3000 MW Aeolus – Mona
- 1500 MW Mona – Crystal
- 3000 MW TransWest Express



(Routes shown are for illustration only and will be selected only following a comprehensive environmental review process)



Approx. Scale

200 Miles

## CASE 12

### Gateway South Facilities

- Dave Johnston - Mona 500KV Single Circuit
- Aeolus - Mona - Red Butte - Crystal 500KV Double Circuit

### TransWest Express Facilities

- Wyoming - Marketplace 500KV HVDC
- Marketplace - Pinnacle Peak 500KV Single Circuit

### Transfer Capacity

- 7500 MW Leaving Wyoming
- 4500 MW Aeolus/Dave Johnston - Mona
- 3000 MW Mona - Crystal
- 3000 MW TransWest Express